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IS 11575 (1986): Polyester Filter Cloth [TXD 33: Industrial Fabrics]



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Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

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IS : 11575 - 1986

Indian Standard
SPECIFICATION FOR
POLYESTER FILTER CLOTH

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INDIAN STANDARDS INSTITUTION
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NEW DELHI 110002

AMENDMENT NO. 1 JUNE 1991
TO
IS 11575 : 1986 SPECIFICATION FOR
POLYESTER FILTER CLOTH

(This amendment is being issued to include an additional variety which has found acceptance for the filtration of zinc slurry.)

(Page 3, clause 1.1) — Substitute 'six varieties' for 'five varieties'.

(Page 4, Table 1) — Insert the following variety in the Table as Variety 2 and renumber Variety No. 2 to 5 as Variety No. 3 to 6:

TABLE 1 REQUIREMENTS OF POLYESTER FILTER CLOTH

(Clause 3.1)

Variety Number	Ends per dm	Picks per dm	Mass	Breaking Strength on 5×20 cm Strip <i>Min</i>		Air Permeability	Dimensional Changes on Washing (to be Tested in Boiling Water)	Weave
				Warp	Weft			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
			g/m ²	N	N	cm ³ /cm ² /s		
2	472	412	155	1 275	975	20·5	± 2 percent	5-end Satin

(TXD 24)

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Indian Standard

SPECIFICATION FOR POLYESTER FILTER CLOTH

Industrial Textiles Sectional Committee, TDC 49

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(Continued on page 2)

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IS : 11575 - 1986

(Continued from page 1)

Filter Fabrics Subcommittee, TDC 49 : 1

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Indian Standard

SPECIFICATION FOR POLYESTER FILTER CLOTH

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 3 March 1986, after the draft finalized by the Industrial Textiles Sectional Committee had been approved by the Textile Division Council.

0.2 Filter fabrics made from polyester are being increasingly used by chemical industries, smelters and for wet filtration in the country. Standardization of these filter fabrics is expected to provide impetus to the industry.

0.3 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS : 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1. SCOPE

1.1 This standard prescribes the requirements of five varieties of polyester filter cloth.

2. MANUFACTURE

2.1 Yarn — Continuous multifilament or monofilament or spun polyester yarn and made from virgin polyester filament only. The identification of polyester filament may be done according to IS : 667-1981†.

2.2 Cloth — The polyester filter cloth, when visually examined, shall be reasonably free from weaving and other processing defects.

2.2.1 The polyester filter cloth shall be heat set to obtain dimensional stability.

*Rules for rounding off numerical values (*revised*).

†Methods for identification of textile fibres (*first revision*).

3. REQUIREMENT

3.1 The polyester filter cloth shall comply with the requirements given in Table 1.

TABLE 1 REQUIREMENTS OF POLYESTER FILTER CLOTH

VARIETY No.	ENDS PER dm	PICKS PER dm	MASS	BREAKING LOAD 5 × 20 cm STRIP Min		AIR PERME- ABILITY	DIMENSIONAL CHANGES ON WASHING (TO BE TESTED IN BOILING WATER)	WEAVE
				Warp	West			
(1)	(2)	(3)	(4) g/m ²	(5) N	(6) N	(7) cm ³ /cm ² /s	(8)	(9)
1	392	208	145	1 050	650	7.0 }	Shall not exceed ± 2 percent in both length and width directions	2/2 Twill
2	252	104	575	4 000	2 000	2.5 }		do
3	240	108	615	4 550	2 500	2.5 }		do
4	256	104	620	4 500	2 500	2.5 }		do
5	276	148	675	5 000	3 000	2.5 }		do
TOLE- RANCE	± 2.5 per- cent	± 5.0 per- cent	+ 5.0 - 2.5 percent	—	—	± 1.5	—	—

METHOD IS : 1963-1981* IS : 1964-1970† IS : 1969-1985‡ IS : 11056-1984§ IS : 1299-1984|| Visual

NOTE — 1N = 0.102 kgf approximately.

*Methods for determination of threads per unit length in woven fabrics (*second revision*).

†Methods for determination of weight per square metre and weight per linear metre of fabrics (*first revision*).

‡Method for determination of breaking load and elongation of woven textile fabrics (*second revision*).

§Method for determination of air permeability of fabrics.

||Method for determination of dimensional changes on washing of fabrics woven from rayon and synthetic fabrics (*second revision*).

3.2 The length and width of filter cloth shall be as agreed to between the buyer and the seller subject to the following tolerances when tested by the method shown against it:

Characteristic	Tolerances	Method of Test
Length	+ 2.0 percent — 1.0 percent	IS : 1954-1969*
Width	± 1.0 percent subject to a minimum of 1 cm in each direction	do

*Methods for determination of length and width of fabrics (*first revision*).

4. MARKING

4.1 The filter cloth shall be marked with the following:

- a) Name of the material;
- b) Variety No.;
- c) Width and length of the piece;
- d) Manufacturer's name, initials or trade-mark, if any; and
- e) Month and year of the manufacture.

4.1.1 The filter cloth may also be marked with the ISI Certification Mark.

NOTE — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution (Certification Marks) Act, and the Rules and Regulations made thereunder. The ISI Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well-defined system of inspection, testing and quality control which is devised and supervised by ISI and operated by the producer. ISI marked products are also continuously checked by ISI for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

4.2 At both the ends of the piece, the filter cloth shall be marked with an identification mark.

5. PACKING

5.1 The filter cloth shall be packed in bales or cases in conformity with the procedures laid down in IS : 1347-1972* or IS : 293-1980† as required.

6. SAMPLING AND CRITERIA FOR CONFORMITY

6.1 For ends per dm, picks per dm, mass in g/m² and breaking load tests, the scale of sampling and criteria for conformity procedures as laid down in IS : 3919-1966‡ shall be followed.

6.2 For dimensional changes on washing test, the scale of sampling and criteria for conformity as laid down in IS : 5463-1969§ for shrinkage test shall be followed.

6.3 For air permeability test the scale for sampling and criteria for conformity shall be same as that of the breaking load test specified in IS : 3919-1966‡.

*Specification for inland packaging of cotton cloth and yarn (*first revision*).

†Code for seaworthy packaging of cotton yarn and cloth (*third revision*).

‡Methods for sampling of cotton fabrics for determination of physical characteristics.

§Methods for sampling of cotton fabrics for chemical tests.

INTERNATIONAL SYSTEM OF UNITS (SI UNITS)

Base Units

QUANTITY	UNIT	SYMBOL
Length	metre	m
Mass	kilogram	kg
Time	second	s
Electric current	ampere	A
Thermodynamic temperature	kelvin	K
Luminous intensity	candela	cd
Amount of substance	mole	mol

Supplementary Units

QUANTITY	UNIT	SYMBOL
Plane angle	radian	rad
Solid angle	steradian	sr

Derived Units

QUANTITY	UNIT	SYMBOL	DEFINITION
Force	newton	N	1 N = 1 kg.m/s ²
Energy	joule	J	1 J = 1 N.m
Power	watt	W	1 W = 1 J/s
Flux	weber	Wb	1 Wb = 1 V.s
Flux density	tesla	T	1 T = 1 Wb/m ²
Frequency	hertz	Hz	1 Hz = 1 c/s (s ⁻¹)
Electric conductance	siemens	S	1 S = 1 A/V
Electromotive force	volt	V	1 V = 1 W/A
Pressure, stress	pascal	Pa	1 Pa = 1 N/m ²



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